

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 82.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-025340**Date Inspected:** 12-Jul-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** Westmont Industries**Location:** Santa Fe Springs, CA**CWI Name:** Ruben Dominguez**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006 L & R**Component:** Maintenance Travelers**Summary of Items Observed:**

On this date, Caltrans Quality Assurance Inspector (QA) Sherri Brannon is present at the Westmont Industries (WMI) jobsite in Santa Fe Springs, California for the purpose of observing fabrication and QC functions for the SAS Superstructure, Bid Item #99, Maintenance Traveler and Bid Item #100, Maintenance Traveler (Bike Path).

**E2/E3 Bike Path Traveler**

This QA Inspector made random shop observations and observed no fit-up on the E2/E3 Bike Path Traveler Assemblies on this date.

**SAS-WB Traveler – Lower Truss Frame Assembly**

Welding Completed on the SAS-WB Traveler – Lower Truss Frame Assembly on Thursday 5-12-11. Quality Control Mr. Dominguez informed QA Inspector that Smith Emery did complete visual inspection and waiting on WMI to weld and grind on some area's found by visual inspection. QA Inspector randomly observed WMI personnel grinding pick-up area's found by QC on this date. Pick-up not completed on this date.

**E2/E3-WB Traveler**

This QA Inspector randomly observed WMI production personnel Mr. Richard Fuentes WID #3201 and one helper, performing layout, fitting and tack welding activities at various locations for the E2/E3-WB Traveler Assemblies. This QA Inspector observed Mr. Fuentes performing the FCAW in all positions randomly throughout the shift.

This QA Inspector randomly observed WMI production welder Mr. Eutimo Lopez (WID # 3035) continuing to

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## WELDING INSPECTION REPORT

( Continued Page 2 of 4 )

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perform Flux Core Arc Welding (FCAW) activities on the E2/E3-WB Traveler Assemblies. This QA Inspector observed Mr. Lopez performing the FCAW in all positions on tube steel and plate material, randomly throughout the am shift.

### Elevation Platforms

This QA Inspector randomly observed WMI production personnel Mr. Jose Rodriguez (WID # 3031) performing layout, fitting and tack welding activities at various locations for the E2/E3-WB Traveler Assemblies. This QA Inspector observed Mr. Rodriguez performing the FCAW in all positions randomly throughout the shift.

### SAS-WB Traveler - Fixed Stair Section

This QA Inspector randomly observed WMI production personnel Mr. Cesar Canales WID #3195 and helper Mr. Jesus Rayas WID#3197, performing layout, fitting and tack welding activities at various locations for the SAS-WB Traveler Assemblies. This QA Inspector observed Mr. Canales performing the FCAW in all positions randomly throughout the shift.

This QA Inspector observed WMI production welder Mr. Charles Newton (WID # 3200) continuing to perform Flux Core Arc Welding (FCAW) activities on the SAS-WB Traveler Assemblies. This QA Inspector observed Mr. Newton performing the FCAW in all positions randomly throughout the shift.

This QA Inspector randomly observed that Smith Emery, CWI, QC Inspector Mr. Ruben Dominguez was present, during the above mentioned welding and fitting activities. During random observation, this QA Inspector observed that the applicable WPS's and copies of the shop drawings, appeared to be located near each work station, where the above mentioned welding and fitting activities were being performed. This QA Inspector randomly verified that the consumable material, utilized during the welding appeared to be in compliance with the applicable WPS and that the above mentioned welders were currently qualified for the applicable process and position of welding. This QA Inspector randomly observed QC Inspector Mr. Dominguez verifying the in-process welding parameters, including voltage, amperage, pre-heat and travel speed and the parameters appeared to be in compliance to the applicable WPS.

This QA Inspector observed that the activities mentioned above, appeared to be in compliance with the contract requirements and this QA Inspector observed no non-conforming issues, on this date.

### RPI Coating (Blast and Paint)

This QA Inspector performed random shop observations and observed that RPI is on site to continue abrasive blast and prime coat Trolley Links Assemblies. QA Inspector was informed by RPI Coating Mr. Ronnie Ybarra that RPI is going to start abrasive blasting and apply the Sherman Williams Zinc Clad II prime coat to the Trolley Links today. Later in the morning this QA Inspector randomly observed that RPI personnel performing abrasive blasting activities on the Trolley links assemblies. After abrasive blasting was completed, QA Inspector then observed RPI Coating Quality Control (QC) Representative Mr. Ronnie Ybarra performing what appeared to be random surface profile checks on the abrasive blasted base metal surfaces. This QA Inspector observed Mr. Ybarra utilizing what appeared to be Testex Press-O-Film and a micrometer to perform the testing. Initially, this QA Inspector observed Mr. Ybarra applying the film to the blasted surface then utilizes one end of a pen to perform rubbing activities on the clear portion of the test strip. This QA Inspector then observed Mr. Ybarra utilize a micrometer to measure the surface profile on the clear film part of the strip, in which the rubbing was performed.

# WELDING INSPECTION REPORT

( Continued Page 3 of 4 )

Mr. Ybarra explained to this QA Inspector that the initial setting on the micrometer was set at 2mils over, due to the thickness of the X-Coarse Press-O-Film paper. During observation, this QA Inspector observed that the readings appeared to be 3.2 mils, 3.5 mils, 3.8 mils, 3.4 mils, and 3.4 mils. This QA Inspector noted that the contract requires a surface profile of 1.5 mils, (40 um) - 3.4mils (86um) and that the above mentioned tested profile appears to be in compliance with the contract requirements with the exception of the 3.5 mils and 3.8mils. After surface profile testing, this QA Inspector then observed Mr. Ybarra perform a test for soluble salts on the previously blasted base metal surface. This QA Inspector observed the testing being performed two (2) tests at random locations. Soluble salt tests results were zero (0) parts per million (PPM) which appeared to meet or exceed one test per 200 square meters, per the contract requirements. After testing, this QA Inspector observed that the soluble salt content appeared to be well below the max of 10 micrograms per square centimeter. This QA Inspector was then informed by Mr. Ybarra that primer application will soon start.

Later in the shift, this QA Inspector randomly observed RPI Coating performing what appeared to be primer application activities within what appeared to be within an 8 hour time frame from the above mentioned blasting activities. Environmental readings taken by RPI at the time of primer application are as follows respectively: Air Temperature 76 F, Relative Humidity 54%, Wet Bulb Temperature 64 F, Dew point 57 F and Surface Temperature 78 F. QA Inspector performed measurement of dry coating thickness with Type 2 (magnetic gage), DFT's thickness reading of the prime coated Trolley Links Assemblies prime coated on 07-11-11 are an average of three (3) thickness reading are as follows 4.4 mils, 3.9 mils, 3.6 mils 3.6 mils, 4.3 mils, and 4.1mils. QA Inspector also, observed Mr. Ybarra documenting daily activities on RPI Coating QC Daily Inspection Report. QA Inspector informed SMR Mr. Nicolai Hvass of the above information.

Note: The above mentioned Trolley Link Assemblies had been previously abrasive blasted and primed coated and was determined by Sherman Williams Representative Mr. Eric Anderson, RPI Coating Mr. Gary McDonald and RPI Coating Mr. Carlos Torres that RPI Coating that RPI had greatly exceeded the 3.4 mils to 5.9 mils for prime coating requirements and made the decision to re-blast and re-prime Trolley Link Assemblies. RPI Coating Mr. Gary McDonald and RPI Coating Mr. Carlos Torres will also reevaluate the E2/E3 EB Traveler prime coating thickness at a later date.



## Summary of Conversations:

As stated within this report.

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## WELDING INSPECTION REPORT

( Continued Page 4 of 4 )

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### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Brannon, Sherri	Quality Assurance Inspector
<b>Reviewed By:</b>	Lanz, Joe	QA Reviewer

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